

In the claims:

Please amend the claims as follows:

1. (Currently Amended) A nucleic acid ~~constructs~~ construct for expression of a small peptide, comprising:
 - a nucleic acid sequence encoding a signal peptide;
 - a nucleic acid sequence ~~which encodes~~ encoding the pro-region of a somatostatin or a functional fragment ~~of analog or variant~~ thereof which differs from the wild-type amino acid sequence by at least 1 but not more than 15 amino acid residues, wherein the variant is sufficient to promote secretion from a cell; and
 - a nucleic acid sequence encoding a small peptide other than somatostatin.
2. (Currently Amended) The construct of claim 1, wherein the nucleic acid sequence encoding the signal peptide is from a nucleic acid sequence encoding the pre-region of a somatostatin.
3. (Currently Amended) The construct of claim 1, wherein the small peptide is a small peptide hormone.
4. (Currently Amended) The construct of claim ~~3~~ 1, wherein the small peptide is an anti-diabetic peptide.
5. (Currently Amended) The construct of claim 4, wherein the anti-diabetic peptide is selected ~~from~~ from the group consisting of glucagon-like peptide-1 (GLP-1), ~~exendin~~ exendin-4, gastric inhibitory polypeptide and analogs thereof.
6. (Currently Amended) The construct of claim 1, wherein the construct further comprises a nucleotide sequence encoding a cleavage site between the sequence encoding the pro-region and the sequence encoding the small peptide.

7. (Canceled)

8. (Currently Amended) The construct of claim 7 6, wherein the cleavage site is a multibasic, dibasic or monobasic cleavage site.

9. (Currently Amended) The construct of claim 7 6, wherein the cleavage site is ~~endprotease~~ an endoprotease cleavage site.

10. (Currently Amended) The construct of claim 9, wherein the cleavage site is ~~the cleavage site~~ is recognized by a pro-protein convertase.

11. (Original) The construct of claim 10, wherein the pro-protein convertase is furin, subtilisin-related pro-protein convertase, PC1, PC2, PC6 or PC7.

12. (Original) The construct of claim 1, further comprising at least one regulatory sequence.

13. (Original) The construct of claim 1, wherein the small peptide is GLP-1.

14. (Currently Amended) A non-endocrine cell comprising: ~~an exogenous~~ a nucleic acid sequence ~~which that encodes a fusion protein that comprises (a) a nucleic acid sequence encoding a signal peptide, (b) and a nucleic acid sequence which encodes the pro-region of a somatostatin or a functional fragment or analog variant thereof, which differs from the wild-type amino acid sequence by at least 1 but not more than 15 amino acid residues, wherein the variant is sufficient to promote secretion from a cell, and (c) a nucleic acid sequence encoding a small peptide other than somatostatin,~~ the cell being capable of ~~expressing~~ secreting the small peptide.

15. (Currently Amended) The cell of claim 14, wherein the cell is a homologously recombinant cell in which nucleic acid sequence encoding the small peptide portion of the fusion protein is encoded by an endogenous genomic sequence.

16. (Withdrawn)

17. (Currently Amended) The cell of claim 14, wherein the cell encoded fusion protein further comprises a cleavage site between the pro-region and the ~~sequence encoding the~~ small peptide.

18. (Canceled)

19. (Currently Amended) The cell of claim ~~18~~14, wherein the cell is capable of expressing the small peptide in mature form.

20. (Canceled)

21. (Original) The cell of claim 14, wherein the cell is a primary cell.

22. (Original) The cell of claim 14, wherein the cell is a secondary cell.

23. (Original) The cell of claim 14, wherein the cell is a mammalian cell.

24. (Original) The cell of claim 23, wherein the cell is a human cell.

25. (Original) The cell of claim 23, wherein the cell is a fibroblast or a myoblast.

26. (Currently Amended) The cell of claim 14, wherein the cell is one in which somatostatin is not normally expressed.

27. (Currently Amended) The cell of claim 14, further comprising at least one regulatory sequence; sufficient for expression of the ~~exogenous nucleic acid sequence~~ fusion protein in the cell.

28. (Currently Amended) The cell of claim 14, wherein the ~~sequence encoding the~~ signal peptide is ~~form~~ from the pre-region of a somatostatin.

29. (Original) The cell of claim 14, wherein the small peptide is a small hormone.

30. (Original) The cell of claim 29, wherein the small peptide is an anti-diabetic peptide.

31. (Currently Amended) The cell of claim 30, wherein the anti-diabetic peptide is selected from the group of consisting of glucagon-like peptide-1 (GLP-1), ~~exedin~~exendin-4, gastric inhibitory polypeptide and analogs thereof.

32. (Currently Amended) The cell of claim 18, wherein the cleavage site is a multibasic, dibasic or monobasic cleavage site.

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33. (Original) The cell of claim 32, wherein the cleavage site is an endoprotease cleavage site.

34. (Currently Amended) The cell of claim 33, wherein the cleavage site is the cleavage site ~~is~~ recognized by a pro-protein convertase.

35. (Original) The cell of claim 34, wherein the pro-protein convertase is furin, PACE4, subtilisin-related pro-protein convertase, PC1, PC2, PC6 or PC7.

36. (Original) The cell of claim 18, wherein the cleavage site is a blood coagulation factor cleavage site.

37. (Original) The cell of claim 14, wherein the small peptide is GLP-1.

38. (Original) A method of making a small peptide comprising culturing the cell of claim 14 to thereby obtain a small peptide.

39. (Original) The method of claim 38, wherein the small peptide is obtained in mature form.

40. (Original) The method of claim 38, wherein the small peptide is obtained as part of a fusion peptide which further comprises the pro-region of somatostatin or a functional fragment thereof.

41. (Currently Amended) A method of making a cell capable of ~~expressing~~ secreting a small peptide, comprising:

providing a non-endocrine cell; and,

introducing into the cell a nucleic acid construct of ~~any of~~ claims 1 or 6 ~~or 7~~, to thereby obtain a cell capable of expressing a the small peptide.

42. (Original) The method of claim 41, wherein the cell is a primary cell.

43. (Original) The method of claim 41, wherein the cell is a secondary cell.

44. (Original) The method of claim 41, wherein the cell is a mammalian cell.

45. (Currently Amended) The method of claim 41, wherein the sequence encoding the signal peptide is from the nucleic acid sequence encoding the pre-region of a somatostatin.

46. (Original) The method of claim 41, wherein the small peptide is GLP-1.

47. (Currently Amended) A method of making a cell capable of ~~expressing~~ secreting a small peptide, comprising:

providing a non-endocrine cell; and,

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introducing into the genome of the cell an exogenous nucleic acid sequence ~~which comprises that encodes~~ the pro-region of a somatostatin, wherein the exogenous nucleic acid sequence, upon homologously recombining with the genome of the cell, is linked to a nucleic acid sequence within the genome of the cell which encodes a small peptide, to thereby obtain a cell capable of ~~expressing~~ secreting a small peptide.

48. (Original) The method of claim 47, wherein the exogenous nucleic acid sequence further comprises a nucleic acid sequence encoding a signal peptide.

49. (Original) The method of claim 47, wherein the cell is a primary cell.

50. (Original) The method of claim 47, wherein the cell is a secondary cell.

51. (Currently Amended) The method of claim 48, wherein the sequence encoding the signal peptide is from the nucleic acid sequence encoding the pre-region of a somatostatin.

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52. (Currently Amended) The methods of claim 47, wherein the small peptide is GLP-1.

53.-82. (Withdrawn)

83. (Currently Amended) A nucleic acid construct for expression of GLP-1, comprising: a nucleic acid sequence encoding a fusion protein comprising a signal peptide from the pre-region of somatostatin; ~~a nucleic acid sequence which encodes~~ the pro-region of a somatostatin or a functional fragment or analog thereof; and ~~a nucleic acid sequence encoding~~ GLP-1.

84. (New) A non-endocrine, mammalian cell comprising a nucleic acid sequence encoding a fusion protein comprising: a signal peptide, the pro-region of somatostatin, and a small peptide other than somatostatin, wherein the cell secretes the small peptide.

85. (New) The cell of claim 84, wherein the small peptide is a peptide hormone.

86. (New) The cell of claim 84, wherein the cell is a human cell.

87. (New) The cell of claim 84, wherein the cell is a fibroblast.

88. (New) The cell of claim 84, wherein the small peptide is GLP-1.

89. (New) A non-endocrine, human cell comprising a nucleic acid sequence encoding a fusion protein comprising: the prepro-region of somatostatin and GLP-1, wherein the cell secretes GLP-1.

90. (New) The construct of claim 1, wherein the variant of the pro-region of somatostatin differs from the wild-type amino acid sequence by at least 1 but not more than 10 amino acid residues.

91. (New) The construct of claim 1, wherein the variant of the pro-region of somatostatin differs from the wild-type amino acid sequence by at least 1 but not more than 5 amino acid residues.

92. (New) The cell of claim 14, wherein the variant of the pro-region of somatostatin differs from the wild-type amino acid sequence by at least 1 but not more than 10 amino acid residues.

93. (New) The cell of claim 14, wherein the variant of the pro-region of somatostatin differs from the wild-type amino acid sequence by at least 1 but not more than 5 amino acid residues.
